

the radiant heat, which is inherent in a light source of this type, has played a part in the pupal colouring effects.

It may be of further interest to relate that on the day following emergence two of the *aurinia* paired in a cage indoors. They remained together for 14 hours, and after parting the female remained quiescent for a further period of 24 hours. She then became very lively and spent several hours investigating the sprays of honeysuckle provided. After much fluttering and drumming on the leaves the female at last found a spot to her liking, and I was fortunate enough to see her deposit the first egg. About 300 eggs were deposited in four hours, and were arranged in two batches on opposite faces of the same leaf.

A CRITICAL EXAMINATION OF THE SECTION OF A "CHECK LIST OF BRITISH INSECTS" BY KLOET AND HINCKS, DEALING WITH THE "CHERMIDAE" OR PSYLLIDAE.

PART 1: ON THE USE OF THE FAMILY NAME CHERMIDAE, AND A DISCUSSION ON THE SUB-FAMILY LIVIINAE, LÖW.

By G. HESLOP-HARRISON, B.Sc., Ph.D., F.R.S.E.

It was with some considerable interest that I made my first acquaintance with the new Check List of British Insects, published by Kloet and Hincks in 1945. This interest was redoubled when I turned to the section dealing with the Homopterous family "*Chermidae*," or, as I have always preferred, the *Psyllidae*, and checked the contents with my own annotated lists.

One can understand the colossal task compiling such a work would be, and consider only with admiration the fact that it was finally completed in such a short time, even after the original manuscripts had been destroyed by enemy action in 1940. Even so, correct nomenclatorial terminology is the most useful tool of the taxonomist and systematist, as well as others for whom the check list is intended to serve. As the only "standard" Check List of British Insects available, inaccuracies of the sort that appear in the section now under discussion may completely distort the efforts of future workers. These may not merely defeat its original purpose but also do a great deal of irreparable harm if allowed to pass uncorrected.

My present remarks on the section dealing with the *Psyllidae* are very critical, but meant to be constructive, and I have gone to some considerable pains to detail the reasons for each correction I have made. The bibliography appended to the last section is not intended to be a complete bibliography to the *Psyllidae* as a whole but is complete in that I have included all the references I needed in this work.

The order of sequence for the sub-families follows that originally made when Löw first erected them in 1878. It is for this reason, therefore, that the typical genus and sub-family (i.e., *Psylla*, Geoffroy and the *Psyllinae*, Löw) appear fifth and third respectively.

On the Use of the Family Name, Chermidae, Kirkaldy.

Although I have been aware of Kirkaldy's 1904 innovation since my interest in the *Psyllidae* first developed, an examination of the facts

clearly revealed that it was impossible to accept the substitution of *Chermidae* for *Psyllidae* or *Psyllia* for *Psylla*. For clarity, and to indicate that my views are shared by one of the leading workers in the group, I have quoted directly from Tuthill's citation of the facts made in 1942.

"Much confusion has arisen as to the correct family name for this group of insects since Kirkaldy (1904) proposed the name *Chermidae* for *Psyllidae*, Latreille. Kirkaldy erroneously thought that Lamarck (1801) designated *ficus*, Linnaeus, as the type of the genus *Chermes*, L. Lamarck, however, merely cited it as an example of the genus, and this is not acceptable as a type designation. (Op. 79, Int. Comm. Zool. Nom.). Apparently because of this belief that *ficus* was the type of *Chermes*, Kirkaldy considered *Psylla*, Geoffroy, a synonym of *Chermes*. This left the *Psylla* of Latreille *et al* without a name, as *ficus* is not congeneric with the species of the latter. He subsequently (1905) proposed *Psyllia* for the orphaned group. The family would not have been *Chermidae* but *Psylliidae*, however, as the type of the family had been set as *Psylla*, Latreille, in 1807 by Latreille, the changing of the name of this genus would merely have changed the root of the family name, not transferred it to another genus. Since the type of *Chermes* is *abietis* (of the *Aphidoidea*), rather than *ficus*, Kirkaldy's contention is groundless."*

From the above facts, taken in conjunction with the use made of *Chermes* and the *Chermidae* by the compilers of the Check List, it would seem that they had no clear understanding of the implications of the change. Therein they have adopted part only of Kirkaldy's version in accepting *Chermidae* for the family name but have been unaware, or have ignored, even in synonymy, the key transference of *Psylla* to *Psyllia*, which made the whole thing necessary. *Chermes* is used as a substitute for *Psylla* and this is completely unacceptable, as the type understood by Kirkaldy was *ficus*, a species belonging to the archaic and very different genus *Homotoma*, Guer., of the *Prionocneminae*, Scott.† Obviously, therefore, the use thus made of *Chermes* invalidates the whole purpose behind Kirkaldy's efforts. Furthermore, assuming that Kirkaldy in his contention was right, *Chermes* could not now be accepted since his *Psyllia* would hold priority. As a rider to this it might as well be pointed out that nowhere in the literature on the *Psyllidae* has *Chermes* seriously contested with *Homotoma*, but it is usually included in the synonymy as "*=Psylla*, Geoffroy, *pro parte*: *=Homotoma*, Guerin, *pro parte*."

On the use of *Chermes* for *Psylla* or *Psyllia*, Tuthill has the following remarks to make:—

"E. P. Van Duzee, the chief proponent of the name *Chermidae*, whilst following Kirkaldy's names, based his arguments on different

*Very much earlier, Crawford (1914) rejected the change, and offered a very brief but similar explanation for his rejection in the introductory part of his treatment of the American representatives of the genus *Psylla*. I, myself, offered a very similar but detailed version of the same argument in an unpublished section of a Ph.D. thesis on the *Psyllidae* lodged in the Archives of Durham University in 1935.—G. Heslop-Harrison.

†Equal to, and pre-dating the better known sub-family name, the *Carsidarinae*, Crawford, by some 29 years.—G. Heslop-Harrison.

grounds. In an editorial note in the *Pan Pacific Entomologist* (7, 96) he states his case quite clearly, and in private communications states his views more completely. Briefly stated, his thesis is this: The *type* of any category *must* agree in all details with the published description. At first glance this position has a seemingly logical basis, and in the specific instance of *Chermes* versus *Psylla* his position seems sensible, but it is certainly not expedient, nor does it conform to the rules of nomenclature. To abandon the system of nomenclatorial rules established by the Zoological Congress and return to such a so-called 'logical' basis is, of course, unthinkable, and one shudders to think of the resulting confusion."

In discussing this situation with Captain Hemming in Dundee last Autumn, I was led to understand that these changes are still not authorised by the International Zoological Congress, and I hope bringing the facts to notice in this country means that they never will.

The only "British" worker on the group ever to have made use of any of these modifications in published work was Dr K. B. Lal, that, is, until the present Check List appeared. Even then, he only used *Psyllia* for *Psylla*, the family name in his major work still remaining unchanged. The use of *Psyllia* coupled with the *Psyllidae* and not *Psylliidae*, of course, lacks understanding of the situation. In discussing this matter in 1945 with Lal in India, I gathered that his use of *Psyllia* was the outcome of the incomplete discussion and representation of the situation as given by Brittain, Speyer, and Minkiewicz, all of whom used it in connection with their treatment of *Psylla mali*, Schmdbg., in works that were of the uttermost importance in reference to Lal's own work on the same species.

Naturally, it should be fairly clear that such changes as the substitution of *Chermes* for *Psylla*, and *Chermidae* for the family name are not merely confined to the *Psyllidae*, but have far-reaching effects in the related superfamily, the *Aphidoidea*; for its complete operation, substitutional names for the original family and genus would have to be found.

Whilst I am not prepared to extend my arguments into a group of insects in which I do not consider myself at the moment to be sufficiently specialised, *if* the only reason warranting these changes is based on the afore-mentioned annexation of *Chermes* and *Chermidae* for use in the *Psyllidae* on the false premise outlined above, then they, too, are quite unjustifiable, and they must revert to their original positions.

(To be Continued.)

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Department of Agricultural Zoology and Entomology,
King's College, Newcastle-upon-Tyne.

AN APPEAL.

Since 1923 Monsieur Léon Lhomme and his collaborators have been engaged on the compilation of a Catalogue of the Lepidoptera of France and Belgium. The work has now reached Page 648, No. 3110 *Compso-*